WE CLAIM:

1.   Apparatus for processing data, said apparatus being operable to perform processing work at a variable rate of work and comprising:

a performance counter operable to add a work increment value to an accumulated work done value to accumulate a work done value indicative of an amount of processing work performed by said apparatus; wherein

said work increment value is variable so as to represent said variable rate of work.

2.   Apparatus as claimed in claim 1, comprising a clock signal generator operable to generate a clock signal to drive processing operations of said apparatus, said clock signal having a variable frequency and said variable rate of work being dependent upon clock signal frequency.

3.   Apparatus as claimed in claim 2, comprising an increment value adjusting circuit operable to adjust said work increment value in dependence upon said clock signal frequency.

4.   Apparatus as claimed in claim 3, wherein said work increment value variable non-linearly with said clock signal frequency.

5.   Apparatus as claimed in claim 2, comprising a variable voltage power supply operable to supply electrical power to said apparatus at a plurality of different supply voltages, said clock signal generator being operable to generate higher frequency clock signals at higher supply voltages.

6.   Apparatus as claimed in claim 1, wherein said work increment value is programmable under software control.

7.   Apparatus as claimed in claim 1, wherein said work increment value is varied with a read-modify-write operation.

8.   A method of measuring processing work performed by an apparatus for processing data at a variable rate of work, said method comprising the steps of:

adding a work increment value to an accumulated work done value with a performance counter to accumulate a work done value indicative of an amount of processing work performed by said apparatus; and

varying said work increment value so as to represent said variable rate of work.

9.   A method as claimed in claim 8, comprising generating a clock signal to drive processing operations of said apparatus, said clock signal having a variable frequency and said variable rate of work being dependent upon clock signal frequency.

10.   A method as claimed in claim 9, comprising adjusting said work increment value in dependence upon said clock signal frequency.

11.   A method as claimed in claim 10, wherein said work increment value variable non-linearly with said clock signal frequency.

12.   A method as claimed in claim 9, comprising supplying electrical power to said apparatus at a plurality of different supply voltages and generating higher frequency clock signals at higher supply voltages.

13.   A method as claimed in claim 8, wherein said work increment value is programmable under software control.

14.   A method as claimed in claim 8, wherein said work increment value is varied with a read-modify-write operation.